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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,035	10/12/2000	Joseph P. Tunney	47440-021000	6162

7590

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Stephen T. scherrer
McDermott, Will & Emery
227 W. Monroe Street
Chicago, IL 60606-5096

EXAMINER

WINTER, GENTLE E

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 08/29/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

mk-4

Office Action Summary

Application No.

09/689,035

Applicant(s)

TUNNEY ET AL.

Examiner

Gentle E. Winter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 3. 6) ☐ Other: _____

Specification

1. The specification is objected to because the trademark DRAEGER is not in all caps. All occurrences of trademarks appearing in an application must be capitalized wherever they appear, and must be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. Claim 2 is objected to because of the following informalities:

a. Line 15 "misture" appears to reflect a typographical error;

b. Claim 11 appears to be missing a word at line 25.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-10 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. Claims 1-10, recite the limitation "the flare" in line 6, of claim 1. There is insufficient antecedent basis for this limitation in the claim. Changing "the" to "a" would seemingly correct this problem. Additionally, it is not clear if the flare referenced in line 8, is the same as the flare

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in line 6. The use of the indefinite “a” suggest that this is a second flare. If this is the case each flare should be assigned an identifier. i.e. a first flare, second flare etc.

3. In claims 9 and 13 it is not clear what is intended by “leak...having a concentration of at least 50 ppm.” Specifically, the units seemingly should be a flowrate and not a concentration. If the passage is intended to convey that the concentration of anhydrous ammonia in the fluid emanating from the leak is less than 50 ppm then seemingly this should be made explicit. For the purposes of examination this is assumed to be what was intended.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,168,709 to Bombard in view of EP 552750A to Rudat.

5. With respect to claims 1-20, Bombard discloses a method of cleaning a pressurized container (column 1, line 18 *et seq.*), including providing a pressurized container containing an amount of liquefied gas (column 1, line 18 *et seq.*) wherein the container has inlet and outlet valves; injecting a quantity of heated (120F) nitrogen gas (air) (column 2, line 21 *et seq.*) into the container to form a nitrogen/tank-gas mixture; (column 2, line 30 *et seq.*) and venting this mixture and repeating the injection into the container of heated nitrogen gas and venting the mixture to flare until the concentration of liquefied gas reaches a predefined limit (column 2,

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line 30 *et seq.*). Bombard fails to explicitly disclose that the waste stream is sent to flare, and that the waste stream is anhydrous ammonia.

6. Rudat discloses the use of a flare for disposing of anhydrous ammonia. The specifics of the flare are disclosed in the translation of Rudat, (see the attached translation) disclosing a natural gas (propane or methane) and air inlet port(s) to facilitate the ignition and combustion of the ammonia. The species of the waste stream is independent of the applicability of the method. Thus the artisan would have recognized the interchangeability of the two liquefied gases (petroleum versus anhydrous ammonia). The artisan would have been motivated to make the instant combination for the reasons explicitly set forth by Rudat, namely, disposing of anhydrous ammonia using a flare.

7. Bombard discloses ceasing operations when the level of gas is at a "safe level" (column 2, line 30 *et seq.*). Indisputably, a safe level would be no gas percent. Less than 10,000 ppm would include 0%. Further, Bombard discloses taking the concentration to about 0% of the lower explosion limit (column 7, line 16 *et seq.*). The tank is subject to internal inspection for leaks and repair (column 1, line 14 *et seq.*). The last sentence in the Bombard abstract discloses an apparatus for leak detection.

8. Official notice is taken that weighing a container and comparing the weight of the container is a well-known method of ascertaining the changed mass of the container. If applicant takes the position that this is not well known in the art, then applicant is referred to the disclosure of United States Patent No. 4,582,100 to Poulsen disclosing that in filling a pressurized tank it is "conventional" check the contents of the tank with reference to the cylinder's tare weight, to determine the quantities of solvent and gas which remain in the cylinder (column 2, line 16 *et*

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seq.). It is also noted that if applicant takes the position that the tare concept is not well known then applicant will need to credibly argue that the *method* determining the mass of anhydrous ammonia is obvious as the procedure is not apparently disclosed in the specification.

Specifically, the determination would have to take into account the tank's internal temperature, pressure, mass of the non-anhydrous ammonia fluids and other factors.

9. Heating the nitrogen in the line is disclosed in FIG. 7 and associated text. Also see (column 2, line 21 *et seq.*). Further, the presence of a flare line between the container and the flare is believed to be present in claim 1, (or there is an enablement issue with respect to claim 1) and is present references addressing claim 1. Bombard discloses sampling the liquefied gas and verifying the identity of the gas in the container (column 2, line 30 *et seq.*). Bombard further provides that the tank may be entered to remove debris (column 7, line 17 *et seq.*).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. United States Patent No. 5,513,680 to Hiliard et al. discloses a method for purging flammable gases, including the desirability of using either nitrogen or carbon dioxide.
- b. United States Patent No. 5,513,446 to Neubauer et al. discloses a method wherein dried compressed air is used for removing unwanted fluids from a container.
- c. United States Patent No. 5,017,240 to Brown disclosing a method for the removal and recovery of hydrocarbons that are contained within the air/vapor mixture in bulk oil

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or gasoline storage tanks. The air/vapor mixture is flushed from the tank with fresh air and passed, successively, through several stages of a portable condenser train.

d. United States Patent No. 4,469,143 to Vazin discloses a tank truck purging method for purging a vehicle tank compartment to permit access for repair, or maintenance without environmental pollution or hazard to workmen entering the tank. The tank is connectable as by flexible hoses to fill and drain connections for a tank compartment of a rail car.

e. United States Patent No. 5,813,849 to Schwartz et al. teaches that it is known to utilize storage tanks with inert gas, such as nitrogen and a flare to dispose of exhaust gases.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (703) 305-3403.

The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

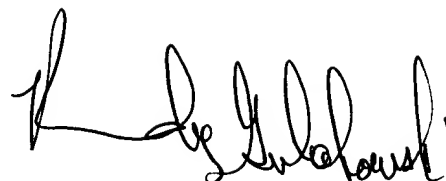
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Gentle E. Winter
Examiner
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August 26, 2002


RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700